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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/430,043	10/29/1999	BRANT L. CANDELORE	080398.P245	6700

7590 04/27/2004

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EXAMINER

HAYES, JOHN W

ART UNIT	PAPER NUMBER
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3621

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/430,043

Applicant(s)

CANDELORE, BRANT L.

Examiner

John W Hayes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6,9-12 and 15-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6,9-12 and 15-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Status of Claims

1. Applicant has amended claims 3, 5, 9 and 15-17 and added new claims 19-26 in the amendment filed 30 January 2004. Claims 1-2, 7-8 and 13-14 have been previously canceled. Thus, claims 3-6, 9-12 and 15-26 are presented for examination.

Response to Arguments

2. Applicant's arguments filed 30 January 2004 have been fully considered but they are either not persuasive or moot based upon the new grounds of rejection.

3. Applicant asserts that the CUSTOMER_CODE disclosed by Richards is not programmable, but is a static value stored within and unique to the set-top box. Examiner respectfully disagrees and notes that Richards also discloses that the user key (CUSTOMER_CODE) is programmable by indicating that the code is embedded and stored in a memory region of a set-top box that is also used as the medium to receive the content (Col. 7, lines 5-12) and the CUSTOMER_CODE can change with time (Col. 10, lines 57-64). The fact that the CUSTOMER_CODE is stored in a programmable, read only memory and that it can change with time provides evidence that the CUSTOMER_CODE is "programmable"

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-6, 9-12, 15-20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards, U.S. Patent No. 6,069,957.

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As per Claims 3, 5-6, 15, 17-18 and 20, Richards discloses a method for copy protection for content comprising:

- a communication interface for receiving an authorization code ([SK]CUSTOMER_CODE) by a conditional access (CA) device such as a set top box via a communication channel, the communication channel being one of a return path of a cable connection (Figure 2; Col. 3, lines 2-5; Col. 6, lines 46-66);
- a key generator for generating a local key (SK) from a programmable user key (CUSTOMER_CODE) according to an authorization code ([SK]CUSTOMER_CODE) provided by a content provider (Col. 7, lines 10-15)
- a descrambler for descrambling the content delivered by a content provider using a local key (Col. 7, lines 17-23).

Richards discloses that the user key (CUSTOMER_CODE) is programmable by indicating that the code is embedded and stored in a memory region of a set-top box that is also used as the medium to receive the content (Col. 7, lines 5-12) and the CUSTOMER_CODE can change with time (Col. 10, lines 57-64). Richards does not explicitly indicate that the generated key is a "local" key, however, examiner is interpreting the key generated by Richards to be a "local" key since this key is encrypted using the CUSTOMER_CODE, thereby localizing the key to that particular user since that particular user is the only user that knows the CUSTOMER_CODE. Thus, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention that the key generated by Richards would be considered a "local" key. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include any information (authorization passwords, codes, PIN, etc.) necessary to generate a local key such as a session key, for example, as is known in the art in order to provide the maximum amount of security to ensure that no other party can determine the session key and gain access to encrypted information.

As per Claims 4, 10 and 16, Richards fails to disclose receiving the user key from the content provider via the communication channel, however, this is also a well known feature in the art. Applicant's own specification admits that delivering keys to a user conditional access (CA) device using messages is

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known in the art (Page 2, lines 18-24). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the method of Richards and include providing the user key through a communication channel or other medium as is well known in the art in order to provide secure content to a user.

As per Claims 9, 11-12 and 25, Richards discloses a method for copy protection for content comprising:

- a descrambler for descrambling the content delivered by a content provider using a local key (Figure 14; Col. 10 line 65-Col. 11 line 22);

- a key generator coupled to the descrambler for generating a local key (CAK) from a programmable user key (UEV, 112) according to an authorization code ([CAK]UEV) provided by a content provider (Figure 14; Col. 10 line 65-Col. 11 line 22), the authorization code is used to control access to the user key by the key generator since the key generator cannot access the UEV until the provider part, 121 is supplied (Figure 14; Col. 10 line 65-Col. 11 line 22);

- a communication interface for receiving an authorization code ([CAK]UEV) by a conditional access (CA) device such as a set top box via a communication channel, the communication channel being one of a return path of a cable connection (Figure 14; Col. 10 line 65-Col. 11 line 22);

Richards discloses that the user key (UEV, 112) is programmable by indicating that the code is embedded and stored in a UEV register of a set-top box and the user controlled part can change with time (Col. 11, lines 33-36). Richards does not explicitly indicate that the generated key is a "local" key, however, examiner is interpreting the key generated by Richards to be a "local" key since this key is encrypted using the User Encryption Variable (UEV) which includes a user controlled part, thereby localizing the key to that particular user since that particular user is the only user that knows the user controlled part. Thus, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention that the key generated by Richards would be considered a "local" key.

Richards further discloses a series of decryptions to arrive at a final decryption key SK, however, examiner submits that it would have been obvious to reduce these series of decryptions to only one step

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wherein the generated decryption key is used to decrypt the content such as the previous embodiment taught by Richards (Figure 2). One would have been motivated to reduce the decryption steps in order to simplify the decryption process when high security is not a concern.

As per **Claim 19**, Richards further discloses wherein the authorization code is entered by the user (Figure 14; Col. 11, lines 3-7).

6. Claims 21-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards, U.S. Patent No. 6,069,957 in view of Mooney et al, U.S. Patent No. 6,351,813 B1.

As per **Claims 21-23 and 26**, Richards et al fail to specifically disclose transferring the user key from the master CA device to the conditioned access device if the authorization code grants a right to transfer the user key to the CA device. Mooney et al disclose an access control system and further teach the use of a user key on a master device such as a smart card (Figure 5 and allowing the user to transfer the key to another access control device (Col. 10, lines 11-35; Col. 10 line 62-Col. 11 line 35) when the user is authorized to do this by entering an authorization code that matches the authorization code at the master device (Figures 6 and 9; Col. 5, lines 27-47; Col. 10 line 62-Col. 11 line 35). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the method of Richards et al and allow the user or system to transfer a user key from one device to another as taught by Mooney et al. This would enable the user to access information from multiple access devices as well as share data between users of different access devices.

As per **Claim 24**, Richards et al fail to disclose wherein the authorization code grants a user a right to duplicate the user key. Mooney et al disclose wherein the user has the capability to duplicate the user key if the user is authorized (Col. 10, lines 11-35; Col. 10 line 62-Col. 11 line 35).

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Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

9. The prior art previously made of record and not relied upon is considered pertinent to applicant's disclosure.

- Lambert et al disclose a method for controlling access to electronically provided services and teach a local key generation service that generates a local key based upon a user authorization code such as a PIN and user key data stored on a medium.

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- Matyas et al disclose a method for protecting software using cryptography and teach wherein the encrypted information is decrypted with a unique file key that is generated using an authorization number as well as a password provided to the user over a telephone connection.
- Hasebe et al discloses a method for protection of encrypted electronic data and teach wherein a decrypting key is generated according to a users personal number.
- Richards discloses a restricted access television system for protecting television signals from unauthorized users and teach decrypting content based upon a customer code and further teach transmitting user keys to users using a communication channel.
- Wasilewski et al disclose authorization of services in a conditional access system and teach decrypting content based upon a user's private key as well as other keys transmitted in control words.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hayes whose telephone number is (703)306-5447. The examiner can normally be reached Monday through Friday from 5:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Trammell, can be reached on (703) 305-9768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

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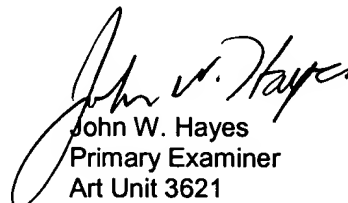
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Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington,
VA, 7th floor receptionist.


John W. Hayes
Primary Examiner
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April 22, 2004